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JNANA BHARATHI
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BUB/CTE/2017-18/

Date: 14-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 12-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	97.00	95-100
26.5	---	-
22.4	73.20	60-80
11.2	53.20	40-60
4.75	33.40	25-40
2.360	17.30	15-30
0.600	14.30	8-22
0.075	4.50	0-8

AE W3

*As Furnished by Client.
The Results relate only to the items tested.

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AE-03

14/10/2017

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BUB/CTE/2017-18/

Date: 16-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 14-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	96.10	95-100
26.5	---	-
22.4	77.25	60-80
11.2	56.40	40-60
4.75	38.85	25-40
2.360	19.45	15-30
0.600	14.70	8-22
0.075	4.95	0-8

*As Furnished by Client.
The Results relate only to the items tested.

AE W3

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BUB/CTE/2017-18/

Date: 19-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 16-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	96.30	95-100
26.5	---	-
22.4	72.50	60-80
11.2	53.80	40-60
4.75	33.90	25-40
2.360	17.30	15-30
0.600	14.55	8-22
0.075	4.75	0-8

*As Furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2017-18/

Date: 24-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 19-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	97.90	95-100
26.5	---	-
22.4	74.30	60-80
11.2	54.80	40-60
4.75	36.50	25-40
2.360	17.40	15-30
0.600	15.30	8-22
0.075	4.80	0-8

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The Results relate only to the items tested.

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BUB/CTE/2017-18/

Date: 27-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 25-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	97.60	95-100
26.5	---	-
22.4	76.30	60-80
11.2	54.70	40-60
4.75	35.60	25-40
2.360	18.70	15-30
0.600	15.20	8-22
0.075	4.45	0-8

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The Results relate only to the items tested.

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BUB/CTE/2017-18/

Date: 28-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 26-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	98.20	95-100
26.5	---	-
22.4	76.50	60-80
11.2	53.70	40-60
4.75	33.20	25-40
2.360	16.80	15-30
0.600	13.20	8-22
0.075	4.30	0-8

AE W3

*As Furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2017-18/

Date: 30-10-2017

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 28-10-2017
Sample supplied to lab by: M/s. S M L P Asphalts
Bettahalasuru Post,
Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, IV Revision-2001
53	100.00	100
45	98.60	95-100
26.5	---	-
22.4	77.30	60-80
11.2	55.30	40-60
4.75	36.20	25-40
2.360	19.60	15-30
0.600	14.20	8-22
0.075	4.20	0-8

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The Results relate only to the items tested.

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BUB/CTE/2017-18

Date: 11-11-2017

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BM Mix Sample.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}

Ref: Letter No.Testing/BUB/2017-18, dated 09-11-2017

Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North

Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

1. Type of Construction: **Bituminous Macadam.**

TEST RESULTS:

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.56 %**

2.**Gradation Test**

IS Sieve Designation, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Desired gradation for 50-75mm thick ,as per Table 500-4 of M.o.R.T.H Specifications-IV Revision-2001
26.5	100.00	100
19	93.60	90-100
13.2	82.00	56-88
4.75	23.60	16-36
2.36	15.00	4-19
0.300	6.00	2-10
0.075	4.00	0-8

*As Furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2017-18 Date: 10-11-2017

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BM Mix Sample.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}

Ref: Letter No.Testing/BUB/2017-18, dated 08-11-2017

Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North

Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

1. Type of Construction: **Bituminous Macadam.**

TEST RESULTS:

2. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.60 %**

2.Gradation Test

IS Sieve Designation, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Desired gradation for 50-75mm thick ,as per Table 500-4 of M.o.R.T.H Specifications-IV Revision-2001
26.5	100.00	100
19	94.50	90-100
13.2	83.00	56-88
4.75	22.00	16-36
2.36	16.00	4-19
0.300	5.60	2-10
0.075	3.20	0-8

AE W3

*As Furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2017-18/

Date: 06-11-2017

TEST REPORT

Sub: Tests on Coarse Aggregates to be used for BM layers.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 04-11-2017
Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TABLE 1.1:

Sl No	Test conducted	Sample No	Test Results	Requirements as per M.o.R.T.H Specification-IV Revision-2001
1.	Combined Flakiness Index and Elongation Index.	001	**25.30**	Not more than 30.0 %
2.	Aggregate Impact Value	------	**23.10**	Not more then 24.00 % for BC Not more then 27.00 % for DBM/ SDBC Not more then 30.00 % for BM
3	Stripping test. (Coating and stripping of Bitumen aggregate mixtures)	-----	**97.80%**	Minimum retained coating 95.0 %
4.	Water Absorption	------	**0.42%**	Not to exceed 2.00%

AE W3

* As furnished by Client.
The results relate only to the samples tested

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AE-07

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BUB/CTE/2017-18

Date: 15-11-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample .
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}

Ref: Letter No.Testing/BUB/2017-18, dated 13-11-2017

Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North

Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

A.Type of Construction : **Bituminous Concrete(40mm thick).**

1.The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **6.10 %**

2.**Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specfications-2001 BC (Grading – 2)
19.0	100	100
13.2	91.20	79-100
9.5	77.40	70-88
4.75	65.00	53-71
2.36	52.00	42-58
1.18	46.00	34-48
0.600	31.20	26-38
0.300	25.00	18-28
0.150	16.30	12-20
0.075	6.10	4-10

*As Furnished by Client.

The Results relate only to the items tested.

AE W3

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BUB/CTE/2017-18

Date: 16-11-2017

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample .
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}

Ref: Letter No.Testing/BUB/2017-18, dated 14-11-2017

Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North

Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TEST RESULTS

A.Type of Construction : **Bituminous Concrete(40mm thick).**

1.The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **6.08%**

2.**Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specfications-2001 BC (Grading – 2)
19.0	100	100
13.2	90.50	79-100
9.5	78.90	70-88
4.75	64.50	53-71
2.36	53.00	42-58
1.18	45.50	34-48
0.600	32.00	26-38
0.300	23.10	18-28
0.150	15.00	12-20
0.075	5.80	4-10

*As Furnished by Client.

The Results relate only to the items tested.

AE W3

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AE-02

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BUB/CTE/2017-18/ Date: 10-11-2017

TEST REPORT

Sub: Tests on Coarse Aggregates to be used for BC layers.
{Project*: Improvements roads and drains at Attur Village, Attur Layout, Santhosh nagara, and Muneswara nagara in Ward No. 03}
Ref: Letter No.Testing/BUB/2017-18, dated 08-11-2017
Sample supplied to lab by: M/s. S M L P Asphalts, Bettahalasuru Post, Bangalore North
Report required for: Assistant Executive Engineer,
Yelahanka New Town Sub- Division,
BBMP, Bangalore

TABLE 1.1:

Sl No	Test conducted	Sample No	Test Results	Requirements as per M.o.R.T.H Specification-IV Revision-2001
1.	Combined Flakiness Index and Elongation Index.	001	**26.10**	Not more than 30.0 %
2.	Aggregate Impact Value	------	**22.00**	Not more then 24.00 % for BC Not more then 27.00 % for DBM/ SDBC Not more then 30.00 % for BM
3	Stripping test. (Coating and stripping of Bitumen aggregate mixtures)	-----	**98.10%**	Minimum retained coating 95.0 %
4.	Water Absorption	------	**0.44%**	Not to exceed 2.00%

* As furnished by Client.
The results relate only to the samples tested

AE W3

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AE-03

10/11/17

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